

WHAT IS CLAIMED IS:

1. A recombinant plasmid vector which comprises:
a kanamycin resistance gene;
5 a promoter;
an endoxylanase signal sequence;
a nucleotide sequence coding for an
oligopeptide consisting of 13 amino acids including 6
consecutive histidine residues; and,
10 a human granulocyte colony stimulating
factor(hG-CSF) gene.

2. The recombinant plasmid vector of claim 1, wherein
the oligopeptide has an amino acid sequence of isoleucine-
15 glutamatic acid-glycine-arginine(Ile-Glu-Gly-Arg) at the C-
terminus.

3. A recombinant plasmid vector, pTHKCSFmII
represented in Figure 13 which comprises:
20 a kanamycin resistance gene;
a Trc promoter;
an endoxylanase signal sequence derived from
Bacillus sp.;
a nucleotide sequence coding for an
25 oligopeptide of SEQ ID NO: 1; and,
a modified gene coding for a human granulocyte
colony stimulating factor(hG-CSF), which includes a
nucleotide sequence of SEQ ID NO: 26 at the N-terminus.

30 4. A microorganism, *E. coli* transformed with the
plasmid vector, pTHKCSFmII of claim 3.

5. The microorganism of claim 4, wherein the *E. coli*

is selected from the group consisting of *E. coli* XL1-Blue, *E. coli* MC4100, *E. coli* BL21(DE3), *E. coli* HB101 and *E. coli* W3110.

5 6. *E. coli* MC4100/pTHKCSFmII(KCTC 0754BP) transformed with the plasmid vector, pTHKCSFmII of claim 3.

7. A process for preparing a human granulocyte colony stimulating factor, which comprises the steps of:

10 culturing *E. coli* transformed with the plasmid vector of claim 1 to obtain a human granulocyte colony stimulating factor fusion protein; and,

 treating the human granulocyte colony stimulating factor fusion protein with a protease to obtain a human
15 granulocyte colony stimulating factor.

8. The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the plasmid vector of claim 1 is pTHKCSFmII.

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9. The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the human granulocyte colony stimulating factor fusion protein is obtained from the culture by employing Ni-column.

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10. The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the protease is Factor Xa.

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